

Table 23.1
Cancer of the Prostate (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2014 With up to Five Joinpoints, 1992-2014 With up to Four Joinpoints,
All Ages by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	2005-14	2010-14										
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2014</u>														
All Races	1975-88	2.6*	1988-92	16.5*	1992-95	-11.6*	1995-00	2.3	2000-10	-1.8*	2010-14	-10.1*	-5.6*	-10.1*
White	1975-88	2.8*	1988-92	16.3*	1992-95	-12.6*	1995-00	2.7	2000-10	-1.9*	2010-14	-10.3*	-5.7*	-10.3*
Black	1975-89	2.1*	1989-92	19.0*	1992-10	-1.6*	2010-14	-9.1*					-5.0*	-9.1*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2014</u>														
All Races	1992-95	-11.1*	1995-00	2.1	2000-10	-1.9*	2010-14	-10.0*					-5.6*	-10.0*
White	1992-95	-12.0*	1995-00	2.5	2000-10	-2.0*	2010-14	-10.3*					-5.8*	-10.3*
Black	1992-10	-1.7*	2010-14	-8.8*									-4.9*	-8.8*
<u>SEER 9 Observed Incidence^a, 1975-2014</u>														
All Races	1975-88	2.6*	1988-92	16.5*	1992-95	-11.6*	1995-00	2.3	2000-10	-1.9*	2010-14	-10.6*	-5.8*	-10.6*
White	1975-88	2.8*	1988-92	16.3*	1992-95	-12.6*	1995-00	2.7	2000-10	-2.0*	2010-14	-11.0*	-6.1*	-11.0*
Black	1975-89	2.1*	1989-92	19.2*	1992-10	-1.7*	2010-14	-10.2*					-5.5*	-10.2*
<u>SEER 13 Observed Incidence^b, 1992-2014</u>														
All Races	1992-95	-11.1*	1995-00	2.1	2000-10	-2.0*	2010-14	-10.6*					-5.9*	-10.6*
White	1992-95	-12.0*	1995-00	2.5	2000-10	-2.1*	2010-14	-11.1*					-6.2*	-11.1*
White NH ^{ef}	1992-94	-17.2*	1994-01	1.0	2001-10	-2.0*	2010-14	-10.9*					-6.1*	-10.9*
Black	1992-10	-1.8*	2010-14	-10.1*									-5.6*	-10.1*
Black NH ^{ef}	1992-10	-1.7*	2010-14	-10.0*									-5.5*	-10.0*
API ^e	1992-97	-6.2*	1997-00	5.7	2000-07	-1.9*	2007-11	-5.7*	2011-14	-12.5*			-7.2*	-10.9*
AI/AN ^{eg}	1992-09	-1.4	2009-14	-9.9*									-6.2*	-9.9*
Hispanic ^f	1992-95	-4.8	1995-02	0.8	2002-10	-2.8*	2010-14	-10.4*					-6.3*	-10.4*
<u>U.S. Cancer Mortality^c, 1975-2014</u>														
All Races	1975-87	0.9*	1987-91	3.0*	1991-94	-0.5	1994-99	-4.1*	1999-14	-3.4*			-3.4*	-3.4*
White	1975-87	0.8*	1987-91	3.1*	1991-94	-0.7	1994-98	-4.5*	1998-12	-3.4*	2012-14	-1.6	-3.0*	-2.5*
Black	1975-88	1.9*	1988-93	3.2*	1993-01	-2.5*	2001-14	-4.2*					-4.2*	-4.2*
<u>U.S. Cancer Mortality^c, 1992-2014</u>														
All Races	1992-94	-1.7	1994-14	-3.5*									-3.5*	-3.5*
White	1992-94	-0.7	1994-99	-4.4*	1999-14	-3.3*							-3.3*	-3.3*
White NH ^{ef}	1992-94	-0.2	1994-98	-4.5*	1998-12	-3.4*	2012-14	-1.3					-3.0*	-2.4*
Black	1992-01	-2.2*	2001-14	-4.3*									-4.3*	-4.3*
Black NH ^{ef}	1992-01	-2.1*	2001-14	-4.2*									-4.2*	-4.2*
API ^e	1992-14	-3.4*											-3.4*	-3.4*
AI/AN ^{eg}	1992-14	-1.7*											-1.7*	-1.7*
Hispanic ^f	1992-94	4.9	1994-14	-2.8*									-2.8*	-2.8*

Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. (<https://surveillance.cancer.gov/joinpoint/>). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry). Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

The Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.

Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

The APC/AAPC is significantly different from zero (p<.05).

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Joinpoint regression line analysis could not be performed on data series.

Table 23.2
Cancer of the Prostate (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2014 With up to Five Joinpoints, 1992-2014 With up to Four Joinpoints,
Ages <65 by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2005-14	2010-14
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2014</u>														
All Races	1975-88	3.1*	1988-92	23.4*	1992-01	3.3*	2001-09	0.2	2009-14	-8.2*			-4.6*	-8.2*
White	1975-88	3.5*	1988-92	23.1*	1992-01	3.1*	2001-09	0.1	2009-14	-8.6*			-4.8*	-8.6*
Black	1975-89	2.0*	1989-93	26.3*	1993-01	2.7*	2001-11	-0.7	2011-14	-10.4*			-4.0*	-8.0*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2014</u>														
All Races	1992-01	3.4*	2001-10	-0.5	2010-14	-9.9*							-4.8*	-9.9*
White	1992-01	3.3*	2001-10	-0.6	2010-14	-10.6*							-5.2*	-10.6*
Black	1992-00	3.7*	2000-10	-0.4	2010-14	-7.9*							-3.8*	-7.9*
<u>SEER 9 Observed Incidence^a, 1975-2014</u>														
All Races	1975-88	3.1*	1988-92	23.4*	1992-01	3.3*	2001-09	0.2	2009-14	-8.5*			-4.8*	-8.5*
White	1975-88	3.5*	1988-92	23.1*	1992-01	3.1*	2001-09	0.1	2009-14	-9.1*			-5.1*	-9.1*
Black	1975-89	2.0*	1989-93	26.2*	1993-01	2.8*	2001-11	-0.9*	2011-14	-11.4*			-4.6*	-8.9*
<u>SEER 13 Observed Incidence^b, 1992-2014</u>														
All Races	1992-01	3.4*	2001-10	-0.6	2010-14	-10.4*							-5.1*	-10.4*
White	1992-01	3.4*	2001-10	-0.7	2010-14	-11.3*							-5.5*	-11.3*
White NH ^{ef}	1992-01	3.3*	2001-10	-0.6	2010-14	-11.2*							-5.4*	-11.2*
Black	1992-00	3.8*	2000-10	-0.7	2010-14	-8.9*							-4.4*	-8.9*
Black NH ^{ef}	1992-00	3.7*	2000-10	-0.5	2010-14	-8.9*							-4.3*	-8.9*
API ^e	1992-01	6.1*	2001-09	0.6	2009-14	-8.6*							-4.6*	-8.6*
AI/AN ^{eg}	1992-09	-0.8	2009-14	-13.6*									-8.2*	-13.6*
Hispanic ^f	1992-02	4.4*	2002-10	-1.4*	2010-14	-8.9*							-4.8*	-8.9*
<u>U.S. Cancer Mortality^c, 1975-2014</u>														
All Races	1975-87	0.5*	1987-90	3.0	1990-96	-3.1*	1996-00	-5.9*	2000-14	-1.3*			-1.3*	-1.3*
White	1975-87	0.7*	1987-90	3.0	1990-96	-3.6*	1996-00	-6.2*	2000-14	-1.1*			-1.1*	-1.1*
Black	1975-92	0.5*	1992-14	-2.9*									-2.9*	-2.9*
<u>U.S. Cancer Mortality^c, 1992-2014</u>														
All Races	1992-01	-4.5*	2001-14	-1.3*									-1.3*	-1.3*
White	1992-01	-4.7*	2001-14	-1.1*									-1.1*	-1.1*
White NH ^{ef}	1992-01	-4.7*	2001-14	-1.1*									-1.1*	-1.1*
Black	1992-04	-3.4*	2004-14	-2.3*									-2.3*	-2.3*
Black NH ^{ef}	1992-01	-3.7*	2001-14	-2.4*									-2.4*	-2.4*
API ^e	1992-14	-0.7											-0.7	-0.7
AI/AN ^{eg}	1992-14	-2.3*											-2.3*	-2.3*
Hispanic ^f	1992-14	-2.0*											-2.0*	-2.0*

Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. (<https://surveillance.cancer.gov/joinpoint/>). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry). Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

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The Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.

Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

* The APC/AAPC is significantly different from zero (p<.05).

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Table 23.3
Cancer of the Prostate (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2014 With up to Five Joinpoints, 1992-2014 With up to Four Joinpoints,
Ages 65+ by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2005-14	2010-14
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2014</u>														
All Races	1975-88	2.5*	1988-92	15.1*	1992-95	-14.8*	1995-00	1.3	2000-10	-2.6*	2010-14	-10.1*	-6.0*	-10.1*
White	1975-88	2.7*	1988-92	14.9*	1992-95	-15.8*	1995-00	1.8	2000-10	-2.7*	2010-14	-10.2*	-6.1*	-10.2*
Black	1975-89	2.0*	1989-92	20.2*	1992-95	-9.2*	1995-09	-2.1*	2009-14	-8.5*			-5.7*	-8.5*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2014</u>														
All Races	1992-95	-14.1*	1995-00	1.0	2000-10	-2.6*	2010-14	-10.1*					-6.0*	-10.1*
White	1992-95	-15.1*	1995-00	1.5	2000-10	-2.6*	2010-14	-10.2*					-6.1*	-10.2*
Black	1992-95	-8.4*	1995-09	-2.4*	2009-14	-8.1*							-5.6*	-8.1*
<u>SEER 9 Observed Incidence^a, 1975-2014</u>														
All Races	1975-88	2.5*	1988-92	15.1*	1992-95	-14.8*	1995-00	1.3	2000-10	-2.6*	2010-14	-10.6*	-6.3*	-10.6*
White	1975-88	2.7*	1988-92	14.9*	1992-95	-15.8*	1995-00	1.8	2000-10	-2.8*	2010-14	-10.9*	-6.5*	-10.9*
Black	1975-89	2.0*	1989-92	20.2*	1992-95	-9.0*	1995-09	-2.2*	2009-14	-9.4*			-6.3*	-9.4*
<u>SEER 13 Observed Incidence^b, 1992-2014</u>														
All Races	1992-95	-14.2*	1995-00	1.0	2000-10	-2.7*	2010-14	-10.7*					-6.3*	-10.7*
White	1992-95	-15.1*	1995-00	1.5	2000-10	-2.8*	2010-14	-11.0*					-6.5*	-11.0*
White NH ^{ef}	1992-95	-15.6*	1995-00	1.6	2000-10	-2.7*	2010-14	-10.8*					-6.4*	-10.8*
Black	1992-95	-8.3*	1995-09	-2.5*	2009-14	-9.2*							-6.3*	-9.2*
Black NH ^{ef}	1992-95	-8.4*	1995-09	-2.5*	2009-14	-9.2*							-6.2*	-9.2*
API ^e	1992-97	-7.7*	1997-00	4.8	2000-07	-2.6*	2007-11	-6.5*	2011-14	-12.9*			-7.9*	-11.3*
AI/AN ^{eg}	1992-14	-2.6*											-2.6*	-2.6*
Hispanic ^f	1992-96	-6.0*	1996-99	3.2	1999-10	-2.9*	2010-14	-11.4*					-6.8*	-11.4*
<u>U.S. Cancer Mortality^c, 1975-2014</u>														
All Races	1975-85	0.9*	1985-93	2.0*	1993-14	-3.6*							-3.6*	-3.6*
White	1975-87	0.8*	1987-91	3.2*	1991-94	-0.5	1994-98	-4.3*	1998-12	-3.5*	2012-14	-1.8	-3.1*	-2.7*
Black	1975-88	2.1*	1988-93	3.5*	1993-01	-2.5*	2001-10	-4.0*	2010-14	-5.8*			-4.8*	-5.8*
<u>U.S. Cancer Mortality^c, 1992-2014</u>														
All Races	1992-14	-3.5*											-3.5*	-3.5*
White	1992-94	-0.5	1994-98	-4.4*	1998-14	-3.4*							-3.4*	-3.4*
White NH ^{ef}	1992-94	-0.2	1994-98	-4.3*	1998-12	-3.5*	2012-14	-1.5					-3.1*	-2.5*
Black	1992-01	-2.1*	2001-14	-4.4*									-4.4*	-4.4*
Black NH ^{ef}	1992-01	-2.0*	2001-14	-4.3*									-4.3*	-4.3*
API ^e	1992-14	-3.5*											-3.5*	-3.5*
AI/AN ^{eg}	1992-14	-1.6*											-1.6*	-1.6*
Hispanic ^f	1992-94	3.8	1994-07	-2.4*	2007-14	-3.8*							-3.5*	-3.8*

Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. (<https://surveillance.cancer.gov/joinpoint/>). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry). Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

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Data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

The APC/AAPC is significantly different from zero (p<.05).

Joinpoint regression line analysis could not be performed on data series.

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Table 23.4
Cancer of the Prostate (Invasive)

Delay-adjusted SEER Incidence^a Rates by Year, Race and Age

Year of Diagnosis:	All Races, Males			White Males			Black Males		
	All	<65	65+	All	<65	65+	All	<65	65+
1975	93.99	13.67	649.24	92.17	13.02	639.27	141.07	26.76	931.22
1976	97.95	14.60	674.14	97.34	13.92	673.97	140.92	29.54	910.86
1977	100.48	15.06	690.98	98.56	14.36	680.56	159.16	29.24	1,057.18
1978	99.40	15.21	681.33	97.73	14.79	671.05	148.11	26.83	986.42
1979	103.42	14.98	714.75	102.31	14.68	708.01	161.90	26.35	1,098.87
1980	106.05	15.52	731.77	105.00	14.69	729.23	161.14	33.79	1,041.42
1981	108.88	16.84	745.11	107.87	15.96	743.20	162.01	34.72	1,041.86
1982	108.25	16.36	743.41	107.33	15.81	739.99	167.75	31.46	1,109.83
1983	111.62	17.15	764.62	110.82	16.60	762.09	171.07	34.02	1,118.41
1984	111.69	17.26	764.40	110.10	16.20	759.14	178.89	37.22	1,158.14
1985	115.52	17.95	790.00	114.65	17.69	784.82	170.41	31.59	1,129.99
1986	119.10	18.55	814.14	119.03	18.29	815.38	168.59	34.08	1,098.34
1987	133.75	21.52	909.52	134.57	21.09	918.97	189.42	36.06	1,249.49
1988	137.63	22.18	935.70	138.73	22.27	943.75	190.20	34.88	1,263.80
1989	145.40	24.19	983.22	146.18	24.08	990.15	191.72	37.28	1,259.25
1990	171.10	28.89	1,154.09	172.86	28.95	1,167.55	222.53	44.83	1,450.91
1991	214.87	38.94	1,430.98	216.49	39.42	1,440.46	289.60	57.48	1,894.07
1992	237.53	49.50	1,537.25	238.43	49.45	1,544.70	330.54	78.77	2,070.87
1993	209.64	50.50	1,309.64	204.48	48.99	1,279.29	345.81	94.78	2,081.03
1994	180.38	48.68	1,090.74	174.26	46.89	1,054.69	315.01	96.07	1,828.41
1995	169.51	50.18	994.34	164.38	48.16	967.75	285.46	100.34	1,565.09
1996	169.59	53.55	971.72	165.24	52.05	947.68	285.20	101.23	1,556.90
1997	173.74	55.34	992.22	170.02	54.01	971.95	287.18	98.56	1,590.97
1998	171.22	55.08	974.02	167.41	53.14	957.26	291.03	104.99	1,577.00
1999	183.61	60.84	1,032.25	179.10	58.80	1,010.64	294.03	113.49	1,542.00
2000	183.31	61.89	1,022.66	179.55	59.84	1,006.98	294.77	116.02	1,530.39
2001	185.28	64.62	1,019.33	182.94	62.69	1,014.19	278.03	115.44	1,401.96
2002	182.53	65.61	990.70	179.83	63.98	980.61	291.47	118.22	1,489.01
2003	170.04	62.06	916.42	166.42	59.80	903.43	263.78	116.97	1,278.55
2004	166.20	62.04	886.15	162.49	60.46	867.76	260.95	107.15	1,324.07
2005	156.91	58.08	840.03	152.34	55.53	821.53	254.39	107.55	1,269.39
2006	172.64	64.88	917.54	168.98	62.73	903.39	258.28	110.59	1,279.15
2007	175.98	67.01	929.24	171.37	64.21	912.11	270.71	120.96	1,305.84
2008	159.08	62.92	823.75	154.77	60.42	806.96	258.52	113.19	1,263.14
2009	156.32	62.83	802.56	152.42	60.62	786.96	250.25	112.52	1,202.30
2010	149.25	59.47	769.85	145.60	57.02	757.93	236.86	108.24	1,125.94
2011	143.19	57.90	732.71	139.04	55.43	716.95	227.10	107.38	1,054.64
2012	117.14	47.10	601.28	112.07	43.92	583.21	196.34	94.15	902.72
2013	112.17	44.99	576.52	108.31	42.62	562.35	191.36	88.95	899.22
2014	102.91	41.82	525.22	99.74	39.70	514.78	162.38	78.47	742.39

Additional information on the model used to delay-adjust SEER Incidence rates can be found at (<https://surveillance.cancer.gov/delay/>).

^a SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Delay-adjusted rate is not shown for observed rates based on less than 16 cases for the time interval.

Table 23.5
Cancer of the Prostate (Invasive)

Age-adjusted SEER Incidence^a Rates by Year, Race and Age

	All Races, Males			White Males			Black Males		
	All	<65	65+	All	<65	65+	All	<65	65+
Year of Diagnosis:									
1975-2014	148.19	43.93	868.84	144.88	41.74	857.78	232.66	82.89	1,267.91
1975	93.99	13.67	649.24	92.17	13.02	639.27	141.07	26.76	931.22
1976	97.95	14.60	674.14	97.34	13.92	673.97	140.92	29.54	910.86
1977	100.48	15.06	690.98	98.56	14.36	680.56	159.16	29.24	1,057.18
1978	99.40	15.21	681.33	97.73	14.79	671.05	148.11	26.83	986.42
1979	103.42	14.98	714.75	102.31	14.68	708.01	161.90	26.35	1,098.87
1980	106.05	15.52	731.77	105.00	14.69	729.23	161.14	33.79	1,041.42
1981	108.88	16.84	745.11	107.87	15.96	743.20	162.01	34.72	1,041.86
1982	108.25	16.36	743.41	107.33	15.81	739.99	167.75	31.46	1,109.83
1983	111.62	17.15	764.62	110.82	16.60	762.09	171.07	34.02	1,118.41
1984	111.69	17.26	764.40	110.10	16.20	759.14	178.89	37.22	1,158.14
1985	115.52	17.95	790.00	114.65	17.69	784.82	170.41	31.59	1,129.99
1986	119.10	18.55	814.14	119.03	18.29	815.38	168.59	34.08	1,098.34
1987	133.75	21.52	909.52	134.57	21.09	918.97	189.42	36.06	1,249.49
1988	137.63	22.18	935.70	138.73	22.27	943.75	190.20	34.88	1,263.80
1989	145.40	24.19	983.22	146.18	24.08	990.15	191.72	37.28	1,259.25
1990	171.10	28.89	1,154.09	172.86	28.95	1,167.55	222.53	44.83	1,450.91
1991	214.87	38.94	1,430.98	216.49	39.42	1,440.46	289.60	57.48	1,894.07
1992	237.53	49.50	1,537.25	238.43	49.45	1,544.70	330.54	78.77	2,070.87
1993	209.64	50.50	1,309.64	204.48	48.99	1,279.29	345.81	94.78	2,081.03
1994	180.38	48.68	1,090.74	174.26	46.89	1,054.69	315.01	96.07	1,828.41
1995	169.51	50.18	994.34	164.38	48.16	967.75	285.46	100.34	1,565.09
1996	169.59	53.55	971.72	165.24	52.05	947.68	285.20	101.23	1,556.90
1997	173.74	55.34	992.22	170.02	54.01	971.95	287.18	98.56	1,590.97
1998	171.22	55.08	974.02	167.41	53.14	957.26	291.03	104.99	1,577.00
1999	183.61	60.84	1,032.25	179.10	58.80	1,010.64	294.03	113.49	1,542.00
2000	183.31	61.89	1,022.66	179.55	59.84	1,006.98	294.77	116.02	1,530.39
2001	185.28	64.62	1,019.33	182.94	62.69	1,014.19	278.03	115.44	1,401.96
2002	182.53	65.61	990.70	179.83	63.98	980.61	291.47	118.22	1,489.01
2003	170.04	62.06	916.42	166.42	59.80	903.43	263.78	116.97	1,278.55
2004	166.20	62.04	886.15	162.49	60.46	867.76	260.95	107.15	1,324.07
2005	156.91	58.08	840.03	152.34	55.53	821.53	254.39	107.55	1,269.39
2006	172.37	64.81	915.88	168.58	62.61	901.15	257.06	110.08	1,273.01
2007	175.43	66.86	925.88	170.58	63.95	907.61	268.16	119.88	1,293.11
2008	158.33	62.71	819.30	153.70	60.05	800.98	254.83	111.62	1,244.80
2009	155.34	62.55	796.76	151.00	60.12	779.16	245.61	110.54	1,179.27
2010	148.11	59.14	763.09	143.92	56.43	748.71	231.34	105.81	1,099.04
2011	141.90	57.53	725.07	137.11	54.75	706.44	220.82	104.53	1,024.66
2012	115.67	46.68	592.49	109.93	43.16	571.45	189.77	91.19	871.17
2013	110.13	44.40	564.47	105.39	41.60	546.35	183.07	85.36	858.45
2014	99.67	40.77	506.85	95.21	38.07	490.16	152.13	73.72	694.09

^a SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 23.6
Cancer of the Prostate (Invasive)

Age-adjusted U.S. Death^a Rates by Year, Race and Age

	All Races, Males			White Males			Black Males		
	All	<65	65+	All	<65	65+	All	<65	65+
Year of Death:									
1975-2014	29.67	2.23	219.34	27.51	1.93	204.31	61.44	5.62	447.28
1975	30.97	2.54	227.48	29.06	2.18	214.88	55.52	6.56	393.98
1976	31.78	2.69	232.91	29.93	2.31	220.84	55.60	6.90	392.19
1977	31.83	2.69	233.28	29.90	2.31	220.57	56.44	6.93	398.67
1978	32.66	2.61	240.33	30.62	2.24	226.79	58.49	6.76	416.09
1979	32.84	2.56	242.13	30.77	2.21	228.17	59.24	6.63	422.90
1980	33.05	2.67	243.08	30.77	2.33	227.39	61.99	6.57	445.03
1981	33.17	2.68	243.95	30.76	2.30	227.52	63.61	7.06	454.45
1982	33.36	2.68	245.47	31.09	2.34	229.85	62.36	6.62	447.67
1983	33.92	2.76	249.30	31.57	2.40	233.18	64.55	6.99	462.46
1984	34.06	2.71	250.77	31.58	2.37	233.49	65.93	6.74	475.13
1985	33.91	2.73	249.43	31.28	2.34	231.34	67.26	7.16	482.68
1986	34.93	2.80	256.99	32.46	2.47	239.72	67.39	6.63	487.36
1987	35.11	2.71	259.06	32.57	2.38	241.27	68.88	6.66	499.03
1988	35.88	2.83	264.40	33.38	2.47	247.08	69.57	6.98	502.28
1989	37.10	2.97	273.01	34.54	2.62	255.20	71.71	7.06	518.54
1990	38.56	3.02	284.23	35.67	2.65	263.98	77.98	7.43	565.65
1991	39.31	2.89	291.08	36.50	2.52	271.39	78.24	7.06	570.21
1992	39.22	2.86	290.58	36.29	2.44	270.28	79.84	7.66	578.73
1993	39.34	2.72	292.48	36.26	2.33	270.82	81.86	7.04	599.08
1994	38.54	2.67	286.48	35.64	2.31	266.04	79.96	6.76	585.93
1995	37.29	2.58	277.23	34.41	2.22	256.93	78.20	6.70	572.47
1996	36.00	2.50	267.61	33.00	2.13	246.38	78.84	6.45	579.20
1997	34.15	2.31	254.26	31.35	1.94	234.58	74.30	6.32	544.22
1998	32.63	2.27	242.49	29.89	1.90	223.36	72.77	6.28	532.41
1999	31.56	2.06	235.48	28.91	1.72	216.88	70.13	5.80	514.78
2000	30.39	1.98	226.82	27.78	1.66	208.29	68.90	5.40	507.82
2001	29.52	1.94	220.14	26.97	1.63	202.08	67.82	5.33	499.72
2002	28.71	1.92	213.87	26.36	1.60	197.48	64.98	5.26	477.81
2003	27.19	1.90	201.97	25.02	1.59	186.95	60.37	5.30	441.02
2004	26.19	1.82	194.64	24.04	1.55	179.54	59.00	4.79	433.72
2005	25.40	1.80	188.57	23.33	1.51	174.20	57.02	4.83	417.76
2006	24.24	1.84	179.14	22.34	1.58	165.81	53.73	4.57	393.54
2007	24.23	1.75	179.68	22.23	1.49	165.58	54.88	4.51	403.03
2008	23.01	1.78	169.73	21.34	1.52	158.30	49.11	4.48	357.62
2009	22.12	1.70	163.30	20.34	1.43	151.06	49.35	4.45	359.70
2010	21.81	1.78	160.30	20.10	1.51	148.62	48.08	4.40	350.01
2011	20.78	1.66	152.98	19.25	1.39	142.74	43.97	4.25	318.50
2012	19.56	1.66	143.31	18.13	1.44	133.52	41.63	3.86	302.69
2013	19.26	1.66	140.89	18.00	1.44	132.48	39.12	3.94	282.29
2014	19.12	1.66	139.81	17.92	1.42	131.97	38.03	3.95	273.66

^a US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 23.7
Cancer of the Prostate (Invasive)

SEER Incidence^a and U.S. Death^b Rates, Age-Adjusted and Age-Specific Rates, by Race

	SEER Incidence ^a			U.S. Mortality ^b		
	All Races Males	White Males	Black Males	All Races Males	White Males	Black Males
<u>Age-Adjusted Rates, 2010-2014</u>						
Age at Diagnosis/Death:						
All ages	119.8	112.8	188.7	20.1	18.7	42.0
Under 65	47.7	43.9	87.3	1.7	1.4	4.1
65 and over	618.5	589.5	889.1	147.1	137.6	303.9
All ages (WHO world std) ^c	91.2	85.7	146.7	11.2	10.3	24.1
<u>Age-Specific Rates, 2010-2014</u>						
Age at Diagnosis/Death:						
<1	-	-	-	-	-	-
1-4	-	-	-	-	-	-
5-9	-	-	-	-	-	-
10-14	-	-	-	-	-	-
15-19	-	-	-	-	-	-
20-24	-	-	-	-	-	-
25-29	-	-	-	-	-	-
30-34	-	-	-	-	-	-
35-39	0.8	0.7	2.1	0.0	0.0	-
40-44	8.8	7.6	21.5	0.2	0.1	0.4
45-49	38.8	32.6	95.4	0.9	0.8	2.1
50-54	123.4	112.1	238.4	3.2	2.7	7.6
55-59	265.3	244.1	479.2	8.7	7.3	21.2
60-64	450.0	423.6	755.2	19.7	17.0	48.2
65-69	693.4	658.5	1,074.5	39.2	34.6	96.1
70-74	718.4	687.1	1,022.6	72.6	65.4	172.0
75-79	632.1	600.2	868.3	129.6	119.1	283.7
80-84	468.8	448.2	614.3	226.1	212.3	475.6
85+	396.4	381.4	558.3	477.7	459.6	870.9

^a SEER 18 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

^b US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

^c Rates are per 100,000 and are age-adjusted to the world (WHO 2000-2025) standard million.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 23.8
Cancer of the Prostate (Invasive)

5-Year Relative and Period Survival (Percent) by Race, Diagnosis Year, Stage and Age

	All Races, Males			White Males			Black Males		
	All	<65	65+	All	<65	65+	All	<65	65+
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1960-1963 ^a	-	-	-	50	-	-	35	-	-
1970-1973 ^a	-	-	-	63	-	-	55	-	-
1975-1977 ^b	67.8	73.4	66.1	68.5	75.2	66.6	60.7	62.0	60.1
1978-1980 ^b	70.1	75.2	68.6	71.2	76.7	69.6	62.1	65.0	60.6
1981-1983 ^b	72.0	76.0	70.9	73.1	77.6	71.9	62.8	65.0	61.9
1984-1986 ^b	75.2	77.4	74.6	76.4	79.0	75.7	65.7	67.3	64.9
1987-1989 ^b	82.8	83.2	82.7	84.4	84.7	84.3	71.1	72.8	70.6
1990-1992 ^b	92.9	93.0	92.9	94.1	94.0	94.1	84.4	86.8	83.5
1993-1995 ^b	95.2	95.9	94.9	95.9	96.6	95.6	91.7	93.3	90.8
1996-1998 ^b	97.4	98.5	96.7	97.9	98.9	97.2	94.9	96.7	93.4
1999-2001 ^b	99.3	99.1	99.3	99.7	99.5	99.6	97.3	98.0	96.3
2002-2006 ^b	99.6	99.4	99.6	99.8	99.6	99.7	97.8	98.6	96.7
2007-2013 ^b	99.2 ^f	99.5 ^f	98.9 ^f	99.6 ^f	99.8 ^f	99.3 ^f	97.4 ^f	98.4 ^f	95.8 ^f
5-Year Period Survival (Percent)^{cd}									
2013	98.5	99.0	98.0	98.6	99.2	98.0	96.5	97.8	94.7
Stage Distribution (%) 2007-2013^{ce}									
All Stages									
Number of cases	360,038	160,985	199,053	274,914	119,372	155,542	54,642	30,281	24,361
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	79	79	79	79	79	80	81	81	81
Regional	12	16	9	13	16	10	10	13	7
Distant	5	3	6	5	3	6	6	4	7
Unstaged	4	2	5	3	1	4	3	2	5
5-Year Relative Survival (Percent), 2007-2013^c									
Age at Diagnosis:									
Ages <45	95.9	-	-	95.1	-	-	97.4	-	-
Ages 45-54	98.1	-	-	98.2	-	-	97.6	-	-
Ages 55-64	99.4	-	-	99.7	-	-	97.9	-	-
Ages 65-74	100.0	-	-	100.0	-	-	97.2	-	-
Ages 75+	94.1	-	-	93.8	-	-	88.8	-	-
Ages <65	99.0	-	-	99.3	-	-	97.8	-	-
Ages 65+	98.3	-	-	98.5	-	-	94.9	-	-
Stage^e:									
All Stages	98.6	99.0	98.3	98.9	99.3	98.5	96.6	97.8	94.9
Localized	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Regional	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.2
Distant	29.8	33.2	28.3	29.2	32.4	27.9	29.3	32.9	26.6
Unstaged	81.2	90.4	78.3	75.3	87.7	71.8	69.9	84.1	63.1

^a Based on End Results data from a series of hospital registries and one population-based registry.

^b SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

^c Based on follow-up of patients into 2014.

^d SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

^e Based on follow-up of patients into 2014.

^f Period survival provides a 2013 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2010-2012: 0-1 year survival), (2009-2011: 1-2 year survival), (2008-2010: 2-3 year survival), (2007-2009: 3-4 year survival), (2006-2008: 4-5 years survival).

^g Stage at diagnosis is classified using SEER Summary Stage 2000. Stage distribution percentages may not sum to 100 due to rounding.

^h The difference between 1975-1977 and 2007-2013 is statistically significant ($p<.05$).

ⁱ The standard error is between 5 and 10 percentage points.

^j The standard error is greater than 10 percentage points.

^k Statistic could not be calculated due to fewer than 25 cases during the time period.

Table 23.9
Cancer of the Prostate (Invasive)
SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Males

	Year of Diagnosis																										
	1975-	1980-	1985-	1990-	1979	1984	1989	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Survival Time																											
1-year	91.4	93.5	95.6	98.8	98.7	99.1	99.3	99.5	99.6	99.7	99.8	99.8	99.7	99.8	99.8	99.8	99.8	99.7	99.7	99.6	99.6	99.3	99.4				
2-year	84.5	87.4	91.0	97.3	97.6	98.0	98.8	98.9	99.6	99.5	99.8	99.8	99.6	99.7	99.6	99.7	99.8	99.6	99.4	99.5	99.3	98.6					
3-year	78.3	81.5	86.9	96.0	96.9	97.4	98.4	98.5	99.5	99.1	99.8	99.7	99.4	99.7	99.5	99.7	99.8	99.3	99.3	99.5	99.2						
4-year	73.2	76.4	83.5	94.9	96.3	96.8	97.9	98.2	99.2	98.8	99.8	99.7	99.4	99.7	99.4	99.6	99.7	99.2	99.3	99.4							
5-year	68.7	72.0	80.5	93.8	95.7	96.4	97.4	98.1	99.2	98.8	99.8	99.7	99.1	99.7	99.1	99.5	99.7	99.2	99.3								
6-year	65.3	68.5	77.9	92.7	95.4	96.0	97.2	97.9	99.2	98.5	99.8	99.7	99.1	99.7	99.1	99.5	99.7	99.2									
7-year	61.8	65.0	75.4	91.6	94.9	95.4	97.1	97.6	99.0	98.4	99.8	99.7	99.0	99.7	99.1	99.5	99.7										
8-year	58.5	61.9	73.3	90.6	94.6	94.9	97.0	97.6	98.7	98.1	99.8	99.7	99.0	99.7	99.1	99.5											
9-year	55.8	59.7	71.4	89.5	94.2	94.4	96.6	97.0	98.5	98.1	99.8	99.7	98.4	99.5	99.1												
10-year	53.2	57.7	69.6	88.5	93.5	94.3	96.5	96.6	98.0	98.1	99.8	99.7	98.3	99.3													
11-year	50.6	55.5	67.9	87.5	92.8	93.9	96.2	96.1	97.9	97.3	99.8	99.7	98.1														
12-year	48.4	53.5	66.1	86.5	91.8	93.5	96.0	95.5	97.4	97.1	99.8	99.7															
13-year	46.5	51.7	64.4	85.9	90.8	93.0	95.1	95.2	97.0	96.6	99.8																
14-year	44.8	50.1	63.0	85.0	89.9	92.7	94.6	94.8	96.5	96.1																	
15-year	43.6	48.7	61.5	84.1	89.2	92.0	94.5	94.8	95.8																		
16-year	41.9	46.9	60.0	83.2	88.7	91.0	93.9	94.2																			
17-year	40.1	45.8	59.4	82.4	87.7	90.5	93.4																				
18-year	38.8	44.4	58.3	81.7	87.5	90.2																					
19-year	38.0	43.0	57.8	80.6	87.0																						
20-year	37.0	41.6	56.8	80.3																							
21-year	35.4	40.8	56.0																								
22-year	34.0	39.5	54.7																								
23-year	33.1	38.3	53.5																								
24-year	32.4	37.4	52.3																								
25-year	30.9	35.8	51.2																								
26-year	30.3	34.6																									
27-year	29.7	34.4																									
28-year	29.0	33.8																									
29-year	28.3	33.2																									
30-year	26.8	32.3																									

^a Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 23.10
Cancer of the Prostate (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,
Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and
Lifetime Risk of Dying from Cancer Given Alive at Current Age
Males, 2012-2014 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer						Risk of Being Diagnosed with Cancer						Risk of Dying from Cancer		Risk of Dying from Cancer		
		+10 yrs			+20 yrs			+30 yrs			Ever							
All Races	0	0.00	0.00	0.00	11.55	2.45		Asian/	0	0.00	0.00	0.00	7.58	2.05				
	10	0.00	0.00	0.01	11.69	2.48		Pacific	10	0.00	0.00	0.00	7.64	2.07				
	20	0.00	0.01	0.25	11.73	2.49		Islander	20	0.00	0.00	0.07	7.65	2.07				
	30	0.01	0.25	1.91	11.87	2.52			30	0.00	0.07	0.75	7.70	2.08				
	40	0.25	1.93	6.15	12.06	2.57			40	0.07	0.75	3.07	7.75	2.10				
	50	1.74	6.09	10.21	12.20	2.64			50	0.69	3.05	5.80	7.80	2.12				
	60	4.77	9.27	11.04	11.45	2.79			60	2.47	5.34	6.88	7.43	2.18				
	70	5.50	7.66	-	8.16	2.94			70	3.21	4.92	-	5.54	2.25				
	80	3.23	-	-	3.98	3.02			80	2.17	-	-	2.97	2.29				
White	0	0.00	0.00	0.00	10.82	2.29		American	0	0.00	0.00	0.00	5.83	2.01				
	10	0.00	0.00	0.01	10.93	2.32		Indian/	10	0.00	0.00	0.00	5.90	2.04				
	20	0.00	0.01	0.21	10.97	2.33		Alaska	20	0.00	0.00	0.08	5.94	2.06				
	30	0.01	0.22	1.72	11.10	2.36		Native ^a	30	0.00	0.08	0.57	6.07	2.11				
	40	0.21	1.74	5.69	11.27	2.40			40	0.08	0.59	2.52	6.25	2.18				
	50	1.58	5.66	9.56	11.42	2.47			50	0.53	2.57	4.74	6.49	2.31				
	60	4.46	8.71	10.38	10.75	2.60			60	2.24	4.62	6.12	6.55	2.51				
	70	5.17	7.19	-	7.64	2.75			70	2.87	4.68	-	5.19	2.68				
	80	3.02	-	-	3.69	2.84			80	2.65	-	-	3.40	2.73				
Black	0	0.00	0.00	0.00	15.40	4.07		Hispanic ^b	0	0.00	0.00	0.00	10.89	2.82				
	10	0.00	0.00	0.02	15.73	4.16			10	0.00	0.00	0.00	11.00	2.85				
	20	0.00	0.02	0.58	15.83	4.19			20	0.00	0.00	0.15	11.04	2.86				
	30	0.02	0.59	3.54	16.12	4.27			30	0.00	0.15	1.27	11.14	2.89				
	40	0.58	3.61	9.83	16.52	4.37			40	0.14	1.28	4.78	11.27	2.92				
	50	3.18	9.73	14.67	16.77	4.56			50	1.16	4.75	8.83	11.40	2.99				
	60	7.55	13.26	15.17	15.68	4.94			60	3.84	8.20	10.28	10.94	3.11				
	70	7.83	10.45	-	11.14	5.43			70	5.09	7.53	-	8.30	3.25				
	80	4.51	-	-	5.70	5.83			80	3.36	-	-	4.43	3.30				

Devcan 6.7.5, April 2017, National Cancer Institute (<https://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, and Georgia excluding ATL/RG). Mortality data are from the NCHS public use data file for the total US.

^a Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

^b Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 23.11
Cancer of the Prostate (Invasive)

SEER Incidence and U.S. Mortality
Age-Adjusted Rates and Trends^a
By Race/Ethnicity

<u>SEER Incidence</u>	SEER 18 Areas ^b Rate 2010-2014		SEER 13 Areas ^b Trend 2005-2014 ^c		SEER 9 Areas ^b Trend 2005-2014 ^d	
	Rate per 100,000 persons		AAPC (%)		AAPC (%)	
	Males	Males	Males	Males	Males	Males
RACE/ETHNICITY						
All Races	119.8		-5.9*		-5.8*	
White	112.8		-6.2*		-6.1*	
White Hispanic ^e	95.6		-6.8*		-	
White Non-Hispanic ^e	116.0		-6.1*		-	
Black	188.7		-5.6*		-5.5*	
Asian/Pacific Islander	62.9		-7.2*		-	
Amer Ind/Alaska Nat ^f	59.9		-6.2*		-	
Hispanic ^e	98.3		-6.3*		-	
U.S. Mortality^g						
	Rate 2010-2014 Rate per 100,000 persons		Trend 2005-2014 ^h AAPC (%)			
	Males	Males	Males	Males		
RACE/ETHNICITY						
All Races	20.1		-3.5*			
White	18.7		-3.3*			
White Hispanic ^e	17.2		-3.3*			
White Non-Hispanic ^e	18.7		-3.0*			
Black	42.0		-4.3*			
Asian/Pacific Islander	8.8		-3.4*			
Amer Ind/Alaska Nat						
Total U.S.	14.9		-2.6*			
CHSDA Counties	19.4		-1.7*			
Non-CHSDA Counties	10.0		-3.8*			
Hispanic ^e	16.5		-2.8*			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.3.0.0, April 2016, National Cancer Institute.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

^a Trend based on less than 10 cases for at least one year within the time interval.

^b Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^c The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta.

^d The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry, and Rural Georgia.

^e The SEER 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, and Georgia excluding ATL/RG.

^f The 2005-2014 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1992-2014.

^g The 2005-2014 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2014.

^e Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2005-2014 Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.

^f Incidence data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

^g US Mortality Files, National Center for Health Statistics, CDC.

^h The 2005-2014 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2014.

* The APC is significantly different from zero ($p < .05$).

Table 23.12
Cancer of the Prostate (Invasive)

Age-Adjusted SEER Incidence Rates^a
By Registry, Race and Age

	All Races			Whites			Blacks		
	All Ages	Ages <65	Ages 65+	All Ages	Ages <65	Ages 65+	All Ages	Ages <65	Ages 65+
SEER Incidence Rates^a, 2010-2014									
California	109.20	40.96	580.90	105.36	39.34	561.70	166.34	82.13	748.46
Greater Bay Area	115.77	44.77	606.51	119.36	46.64	622.00	173.04	84.78	783.15
San Francisco-Oakland	113.59	44.53	591.01	114.70	45.39	593.76	175.74	85.73	797.90
San Jose-Monterey	119.96	45.24	636.44	127.45	48.78	671.27	154.91	79.54	675.87
Los Angeles	105.86	39.66	563.48	97.60	35.74	525.22	166.25	83.08	741.15
Greater California	108.37	40.17	579.82	104.28	38.60	558.26	163.56	80.06	740.75
Connecticut	118.84	50.68	589.99	111.67	46.23	563.97	179.02	84.64	831.46
Detroit	155.18	67.03	764.47	138.58	56.26	707.64	214.81	106.42	963.99
Georgia	129.30	54.52	646.26	109.03	42.73	567.34	200.98	88.71	977.02
Atlanta	141.70	60.19	705.11	120.24	47.83	620.75	201.55	89.45	976.40
Rural Georgia	128.75	58.16	616.72	103.78	44.25	515.30	181.85	81.18	877.69
Greater Georgia	124.05	51.53	625.33	105.43	40.67	553.10	201.17	88.38	980.80
Hawaii	90.13	29.56	508.83	88.38	32.80	472.55	162.84	102.15	582.38
Iowa	112.20	44.72	578.66	109.94	43.77	567.26	159.35	68.80	785.26
Kentucky	113.00	46.40	573.40	105.55	41.21	550.24	165.24	76.08	781.54
Louisiana	144.45	61.49	717.91	127.14	51.87	647.41	199.72	88.01	971.90
New Jersey	139.43	57.85	703.37	130.00	53.05	661.89	199.47	87.20	975.47
New Mexico	91.97	35.19	484.44	91.67	35.83	477.64	122.41	55.28	586.42
Seattle-Puget Sound	123.32	47.08	650.32	124.59	47.36	658.44	171.86	85.43	769.32
Utah	130.59	50.24	686.01	129.98	50.44	679.83	194.18	72.32	1036.51
SEER 9 Areas ^b	122.30	49.56	625.05	117.58	46.70	607.58	193.80	91.71	899.53
SEER 13 Areas ^b	118.48	47.10	611.87	114.06	44.55	594.56	186.03	89.51	853.16
SEER 18 Areas ^b	119.82	47.68	618.46	112.85	43.89	589.54	188.68	87.35	889.10

^a Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130)

^b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry and Rural Georgia.

The SEER 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 23.13
Cancer of the Prostate (Invasive)

Age-Adjusted SEER Death Rates^a
By Registry, Race and Age

	All Races			Whites			Blacks		
	All Ages	Ages <65	Ages 65+	All Ages	Ages <65	Ages 65+	All Ages	Ages <65	Ages 65+
SEER Death Rates^a, 2010-2014									
California	20.02	1.54	147.73	20.59	1.51	152.49	42.58	4.38	306.67
Greater Bay Area	17.93	1.36	132.46	19.46	1.34	144.68	40.70	5.27	285.59
San Francisco-Oakland	17.99	1.44	132.37	18.79	1.26	139.99	42.85	5.85	298.63
San Jose-Monterey	17.81	1.20	132.60	20.60	1.48	152.78	26.40	-	192.89
Los Angeles	19.74	1.53	145.64	19.67	1.39	146.02	45.21	4.50	326.57
Greater California	20.88	1.62	154.01	21.25	1.61	157.03	41.02	3.81	298.18
Connecticut	18.60	1.37	137.66	17.91	1.20	133.39	32.09	3.65	228.75
Detroit	21.16	1.82	154.91	17.50	1.37	129.05	38.74	3.68	281.03
Georgia	23.39	2.06	170.83	18.15	1.49	133.33	48.38	3.77	356.76
Atlanta	26.21	2.15	192.50	19.28	1.45	142.49	49.73	3.73	367.72
Rural Georgia	31.22	-	225.02	21.81	-	155.24	59.06	-	437.84
Greater Georgia	22.09	1.98	161.05	17.66	1.48	129.53	47.02	3.79	345.89
Hawaii	13.72	1.31	99.51	19.37	1.50	142.89	-	-	-
Iowa	19.78	1.45	146.50	19.66	1.45	145.52	37.12	-	277.92
Kentucky	19.82	1.49	146.51	19.10	1.38	141.63	36.55	3.33	266.22
Louisiana	22.46	2.24	162.26	18.16	1.51	133.21	39.45	4.19	283.19
New Jersey	19.44	1.56	143.00	17.72	1.30	131.27	43.76	4.22	317.11
New Mexico	20.69	1.69	152.06	20.66	1.71	151.62	31.50	-	234.47
Seattle-Puget Sound	20.17	1.61	148.45	20.27	1.63	149.14	36.23	3.27	264.10
Utah	22.14	1.47	165.08	22.34	1.53	166.21	-	-	-
SEER 9 Areas ^b	19.93	1.60	146.66	19.38	1.44	143.37	40.79	3.86	296.01
SEER 13 Areas ^b	19.81	1.57	145.92	19.52	1.44	144.44	42.00	3.98	304.84
SEER 18 Areas ^b	20.31	1.64	149.40	19.55	1.47	144.54	42.20	3.96	306.55
Total U.S.	20.07	1.68	147.14	18.65	1.44	137.63	41.97	4.07	303.90

^a US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.

The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry and Rural Georgia.

The SEER 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG.

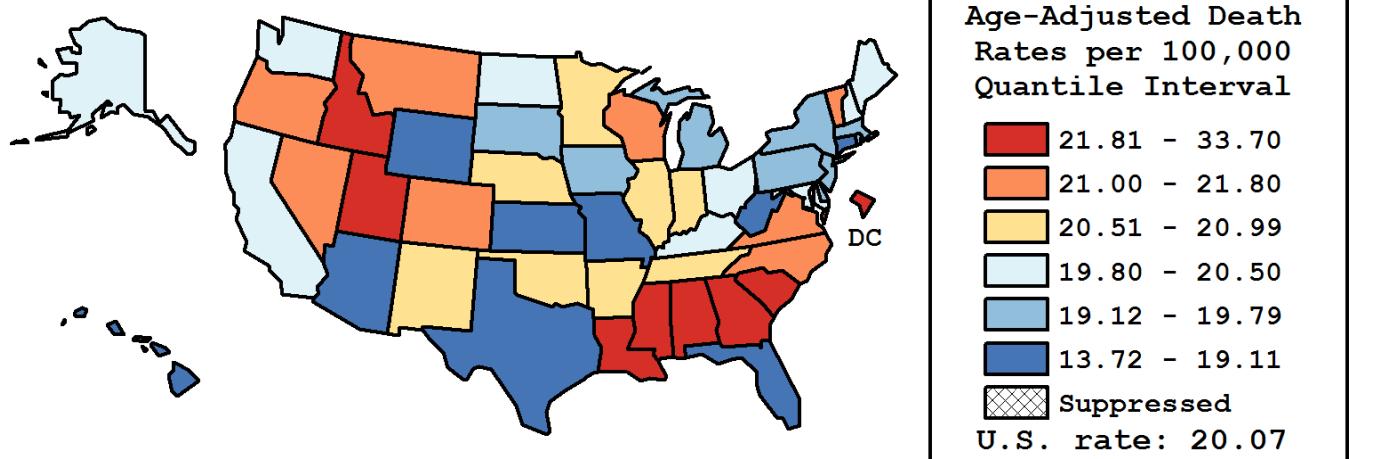
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 23.14
Cancer of the Prostate (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2010-2014

Males									
State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	20.07	0.05							
High Five States									
D.C.	33.70	1.77	01(01,01)	67.94 ^c					
Mississippi	26.17	0.67	02(02,03)	30.44 ^c					
Alabama	23.85	0.49	03(02,08)	18.87 ^c					
South Carolina	23.46	0.50	04(03,10)	16.94 ^c					
Georgia	23.39	0.39	05(03,09)	16.56 ^c					
Low Five States									
Arizona	18.24	0.34	47(39,50)	-9.11					
West Virginia	18.22	0.62	48(29,50)	-9.19					
Missouri	18.19	0.36	49(38,50)	-9.34					
Florida	17.61	0.17	50(46,50)	-12.25 ^c					
Hawaii	13.72	0.62	51(51,51)	-31.62 ^c					

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	23.85	0.49	03(02,08)	18.87 ^c	Montana	21.40	0.90	12(03,44)	6.64
Alaska	20.50	1.57	25(03,50)	2.17	Nebraska	20.87	0.69	19(06,44)	3.99
Arizona	18.24	0.34	47(39,50)	-9.11	Nevada	21.14	0.63	14(06,41)	5.34
Arkansas	20.78	0.56	20(07,42)	3.57	New Hampshire	19.84	0.81	30(08,49)	-1.11
California	20.02	0.16	28(22,38)	-0.23	New Jersey	19.44	0.31	40(24,46)	-3.12
Colorado	21.67	0.48	10(05,28)	7.99	New Mexico	20.69	0.67	23(07,44)	3.13
Connecticut	18.60	0.46	45(30,50)	-7.32	New York	19.49	0.21	39(27,44)	-2.87
Delaware	19.21	0.95	42(08,50)	-4.27	North Carolina	21.56	0.34	11(07,25)	7.46
D.C.	33.70	1.77	01(01,01)	67.94 ^c	North Dakota	19.83	1.06	31(05,50)	-1.18
Florida	17.61	0.17	50(46,50)	-12.25 ^c	Ohio	19.95	0.27	29(20,42)	-0.55
Georgia	23.39	0.39	05(03,09)	16.56 ^c	Oklahoma	20.78	0.50	21(08,40)	3.55
Hawaii	13.72	0.62	51(51,51)	-31.62 ^c	Oregon	21.23	0.47	13(06,34)	5.80
Idaho	23.32	0.83	06(02,20)	16.21 ^c	Pennsylvania	19.76	0.24	36(23,43)	-1.53
Illinois	20.91	0.28	18(10,31)	4.21	Rhode Island	19.79	0.87	34(07,50)	-1.39
Indiana	20.99	0.39	17(08,34)	4.59	South Carolina	23.46	0.50	04(03,10)	16.94 ^c
Iowa	19.78	0.50	35(14,47)	-1.40	South Dakota	19.52	0.96	38(07,50)	-2.70
Kansas	19.11	0.54	43(21,50)	-4.74	Tennessee	20.74	0.40	22(09,37)	3.35
Kentucky	19.82	0.48	32(15,46)	-1.24	Texas	18.68	0.21	44(38,49)	-6.90
Louisiana	22.46	0.51	07(03,18)	11.94 ^c	Utah	22.14	0.71	08(03,29)	10.36 ^c
Maine	19.80	0.75	33(08,49)	-1.34	Vermont	21.09	1.17	15(03,49)	5.13
Maryland	20.31	0.42	27(12,42)	1.23	Virginia	21.06	0.37	16(08,32)	4.94
Massachusetts	19.43	0.36	41(23,47)	-3.17	Washington	20.45	0.38	26(12,40)	1.89
Michigan	19.54	0.29	37(24,45)	-2.61	West Virginia	18.22	0.62	48(29,50)	-9.19
Minnesota	20.65	0.41	24(09,38)	2.90	Wisconsin	21.80	0.40	09(06,24)	8.64
Mississippi	26.17	0.67	02(02,03)	30.44 ^c	Wyoming	18.53	1.23	46(08,50)	-7.65
Missouri	18.19	0.36	49(38,50)	-9.34					



^a US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^b Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).

^c Absolute percent difference between state rate and total U.S. rate is 10% or more.

^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 23.15
Cancer of the Prostate (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2014
By Race/Ethnicity and Years Since Diagnosis

WARNING: The Prevalence Estimates presented on this page utilize a different tumor selection criteria from previous CSR releases and are NOT directly comparable to estimates from previous CSR releases.
Please see the Prevalence Comparison Chapter of this CSR for more information.

Years Since Diagnosis	0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <22 ^e	0 to <39 ^e	>=39 ^g	Complete ^h
<u>Race</u>										
All Races ^b	1,038,106	913,894	640,540	333,354	133,996	19,597	3,050,359	3,084,477	732	3,085,209
White ^b	831,557	751,537	541,036	285,443	119,819	17,768	2,520,665	2,551,678	878	2,552,556
Black ^b	153,415	121,969	79,312	39,027	11,428	1,481	404,551	407,038	73	407,111
Asian/Pacific Islander ^c	22,429	18,438	11,325	4,631	+	+	57,828	+	+	+
Hispanic ^d	62,617	50,575	31,586	14,998	+	+	162,771	+	+	+

Estimated prevalence percent^a on January 1, 2014, of the SEER^c population diagnosed in the previous 22 years
By Age at Prevalence and Race/Ethnicity

Age at Prevalence	Age Specific (Crude)								Age-Adjusted ^f All Ages	
	All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	
<u>Race</u>										
All Races ^c	1.6608%	-	0.0002%	0.0002%	0.0013%	0.0737%	1.0145%	4.9924%	12.5789%	16.4951%
White ^c	1.7681%	-	-	-	0.0011%	0.0644%	0.9596%	4.9247%	12.7390%	16.6536%
Black ^c	1.8660%	-	-	-	0.0034%	0.1951%	2.0595%	8.6530%	18.8869%	22.3298%
Asian/Pacific Islander ^c	0.7730%	-	-	-	-	0.0175%	0.3356%	2.0766%	6.1007%	10.1308%
Hispanic ^d	0.6046%	-	-	-	-	0.0398%	0.6047%	3.3682%	9.6657%	13.6355%

^a US 2014 cancer prevalence counts are based on 2014 cancer prevalence proportions from the SEER registries and 1/1/2014 US population estimates based on the average of 2013 and 2014 population estimates from the US Bureau of the Census. Prevalence was calculated using the first invasive tumor for each cancer site diagnosed during the previous 39/22 years. Statistics based on (b) SEER 9 Areas (c) SEER 13 Areas excluding the Alaska Native Registry

(d) NHIA for Hispanic for SEER 13 Areas excluding the Alaska Native Registry.

^e Maximum limited-duration prevalence: 39 years for 1975-2014 SEER 9 data; 22 years for 1992-2014 SEER 13 data (excluding the Alaska Native Registry) used to calculate prevalence for Hispanics and Asian Pacific Islanders.

^f Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups.

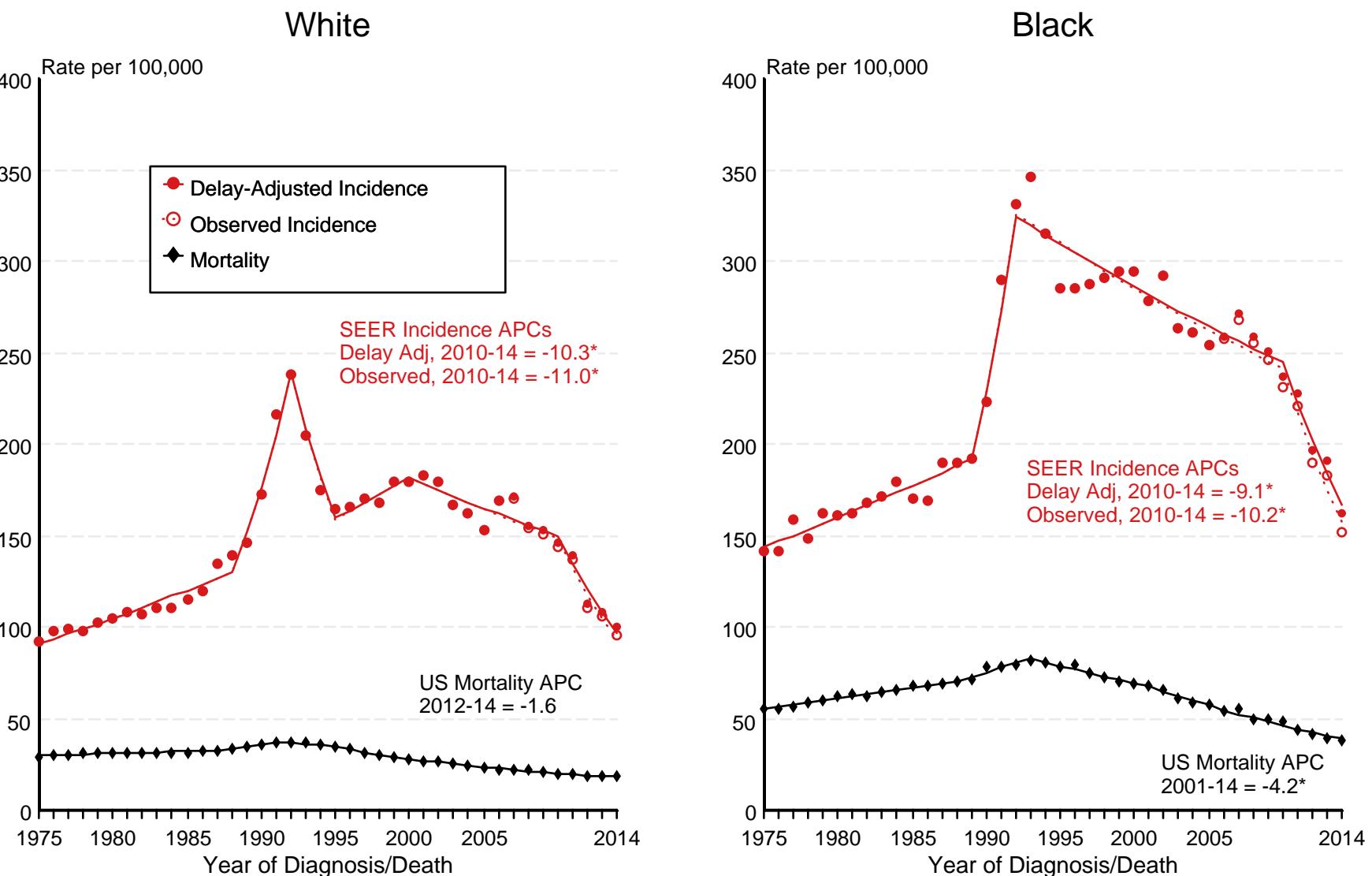
^g ^h Cases diagnosed more than 39 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <39 and >=39. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.

ⁱ Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.

- Not available.

Figure 23.1

SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates^a Cancer of the Prostate, by Race



^a Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC).

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

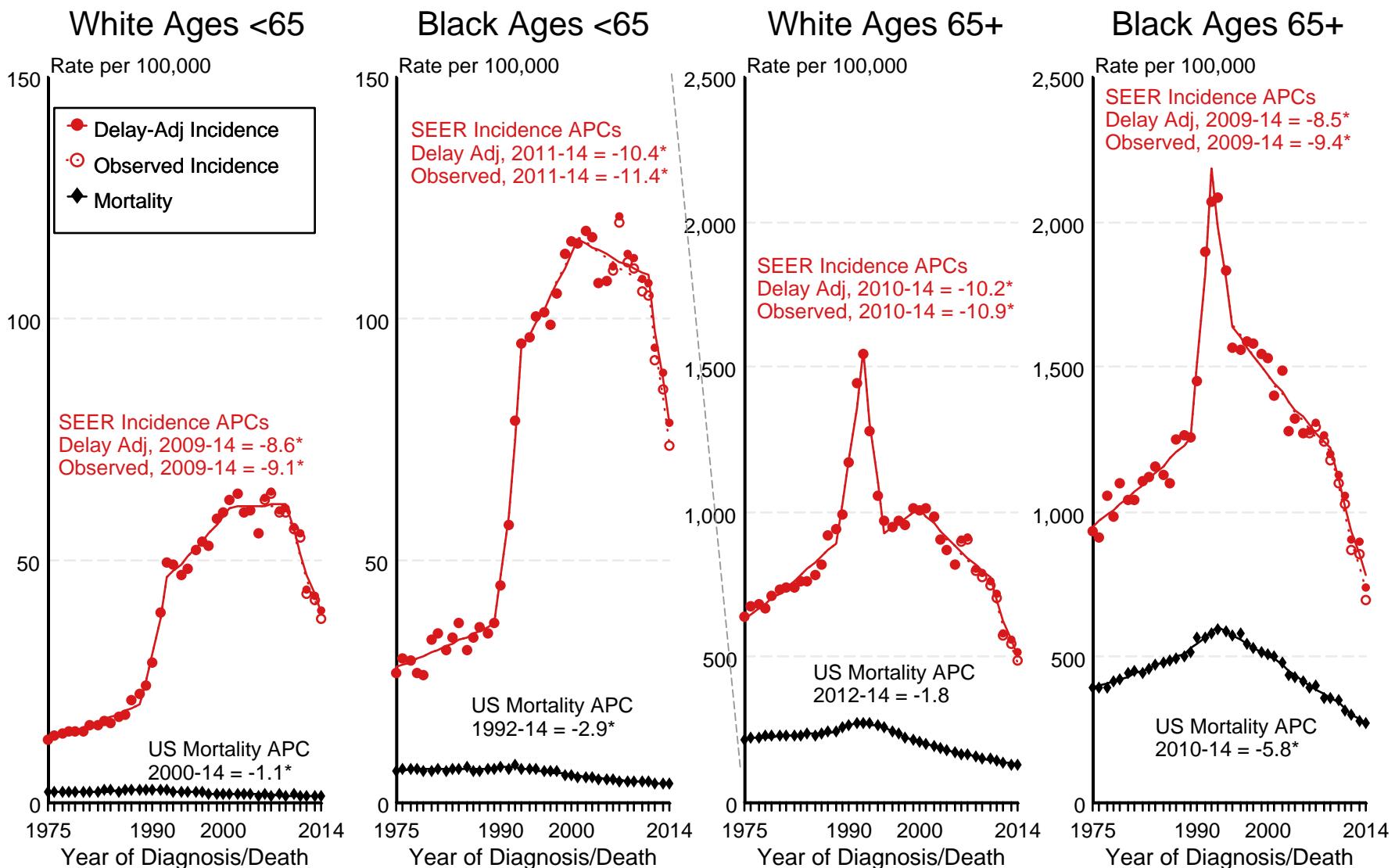
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

* The APC is significantly different from zero ($p < 0.05$).

Figure 23.2

SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates^a Cancer of the Prostate, by Age and Race



^a Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC).

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

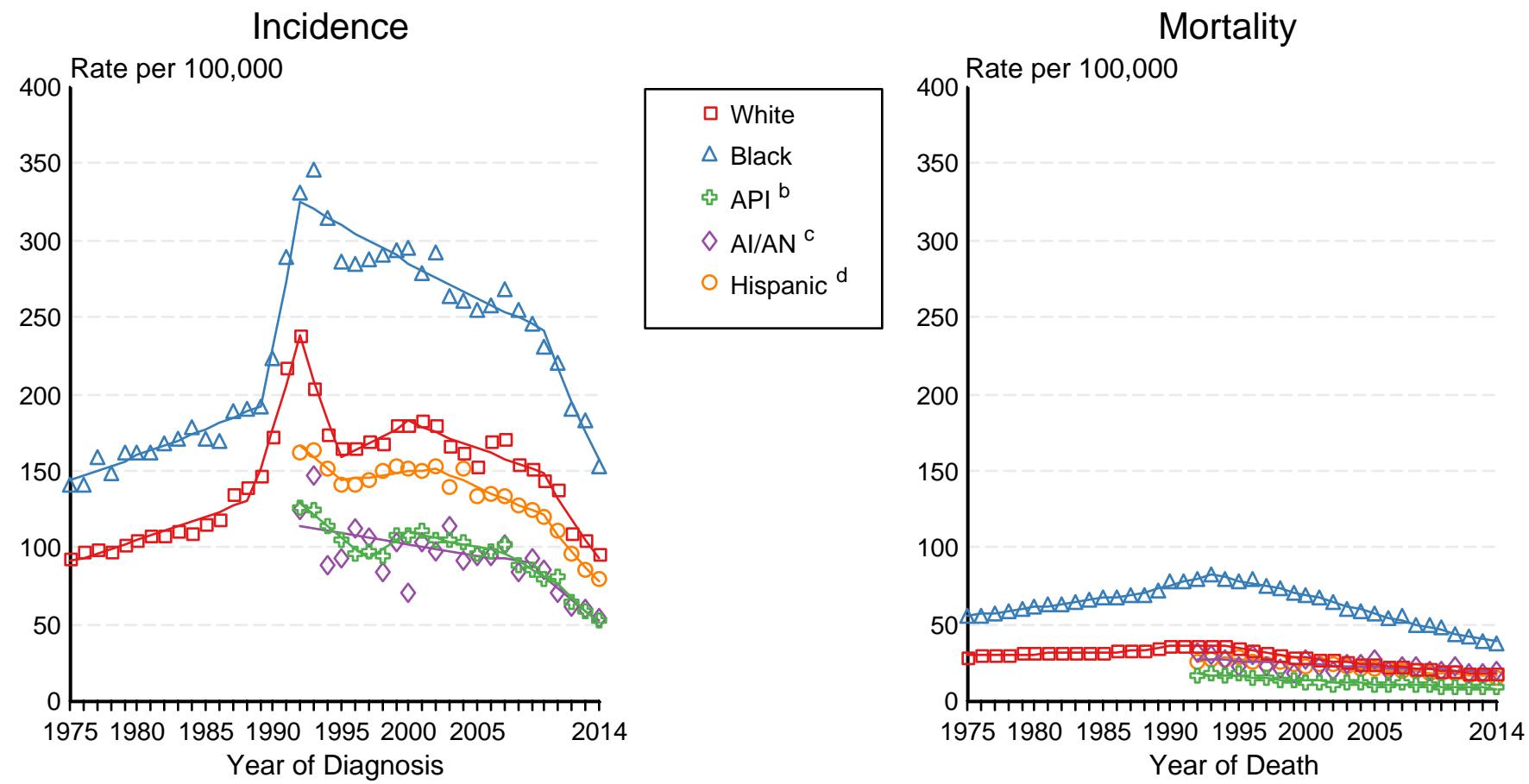
* The APC is significantly different from zero ($p < 0.05$).

Figure 23.3

SEER Incidence and US Death Rates^a

Cancer of the Prostate

Joinpoint Analyses for Whites and Blacks from 1975-2014
and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2014



Source: Incidence data for whites and blacks are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from US Mortality Files, National Center for Health Statistics, CDC.

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2014 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2014 allow a maximum of 4 joinpoints.

^b API = Asian/Pacific Islander.

^c AI/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

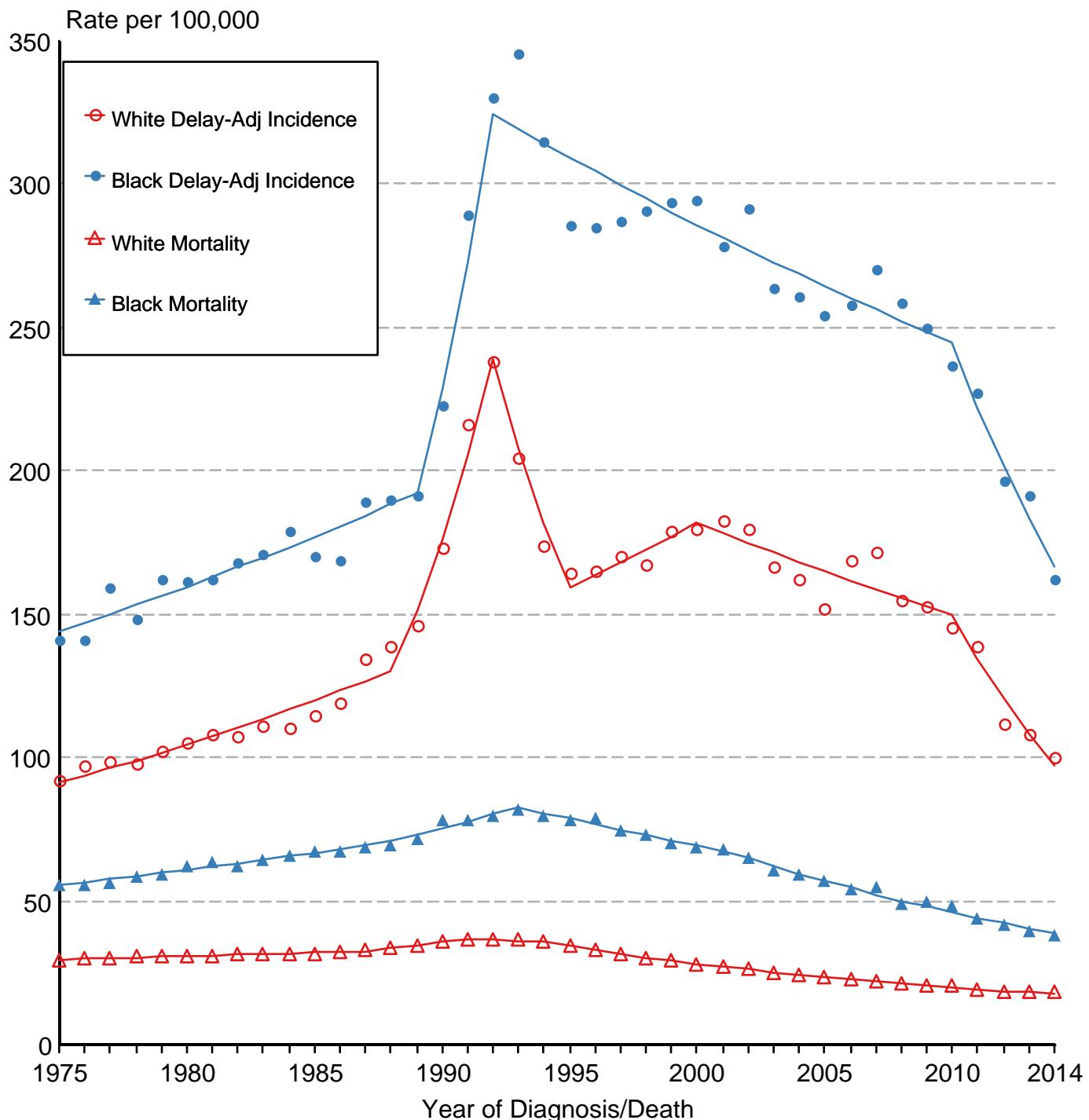
^d Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from New Hampshire and Oklahoma.

Figure 23.4

Cancer of the Prostate

Delay-Adjusted SEER Incidence & US Mortality

1975-2014



Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC).

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

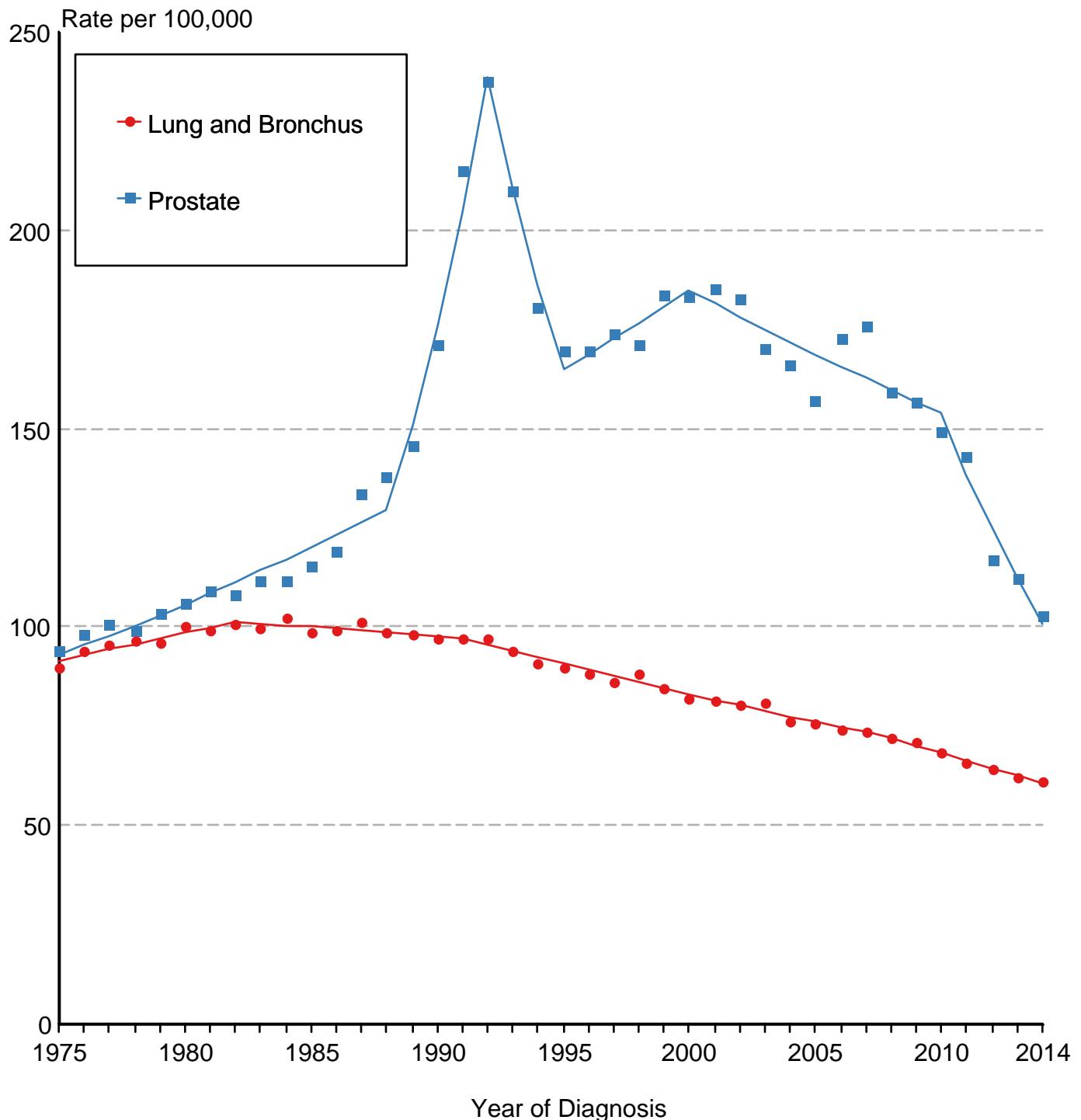
Regression lines are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute.

Figure 23.5

Delay-Adjusted Incidence Rates for Cancer of the Prostate and Cancer of the Lung and Bronchus

All Races, Males

1975-2014



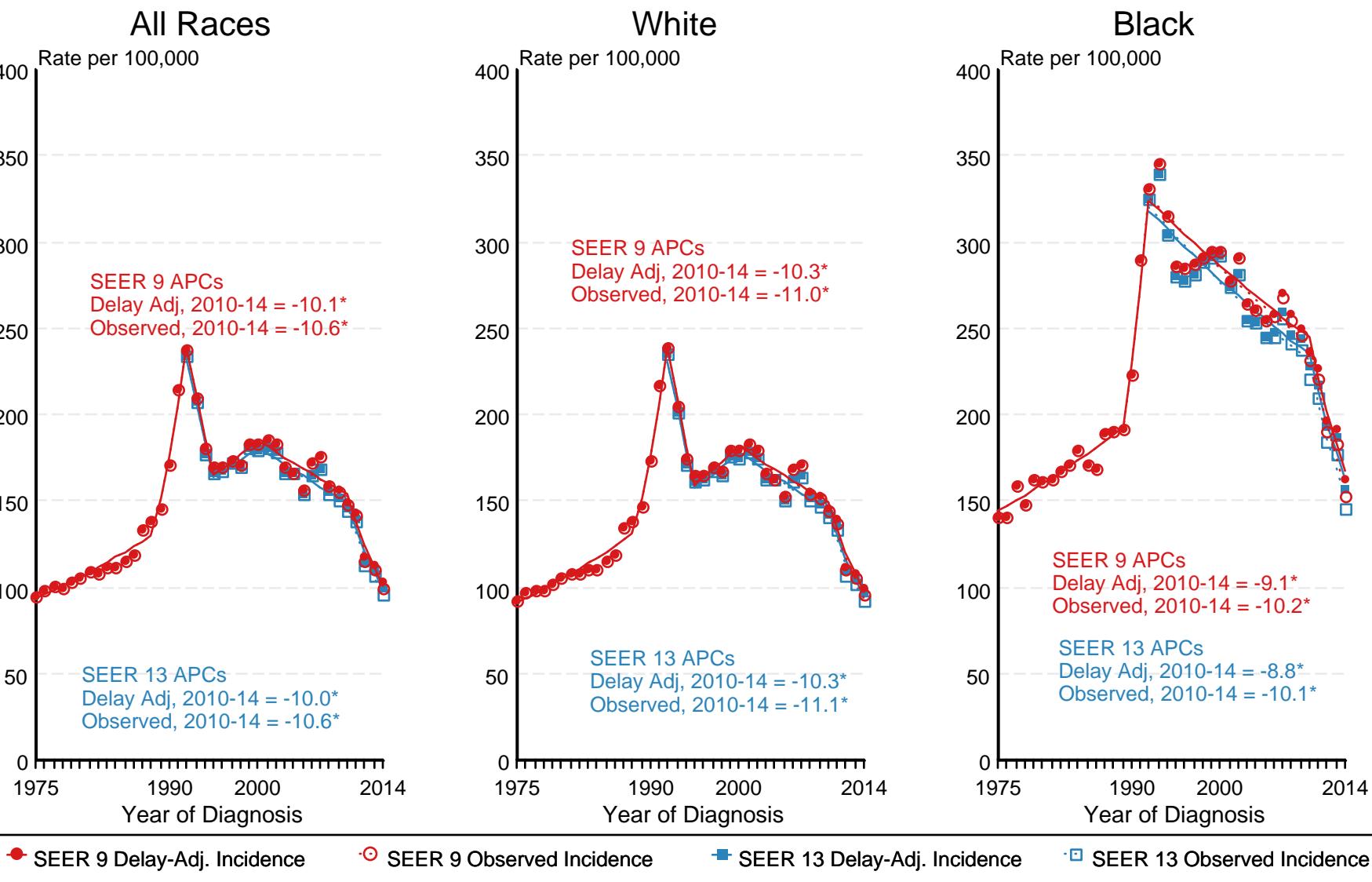
Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute.

Figure 23.6

SEER Observed Incidence and SEER Delay Adjusted Incidence Rates^a

SEER 9 Areas Compared to SEER 13 Areas

Cancer of the Prostate, by Race



^a Source: SEER 9 areas and SEER 13 areas.

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

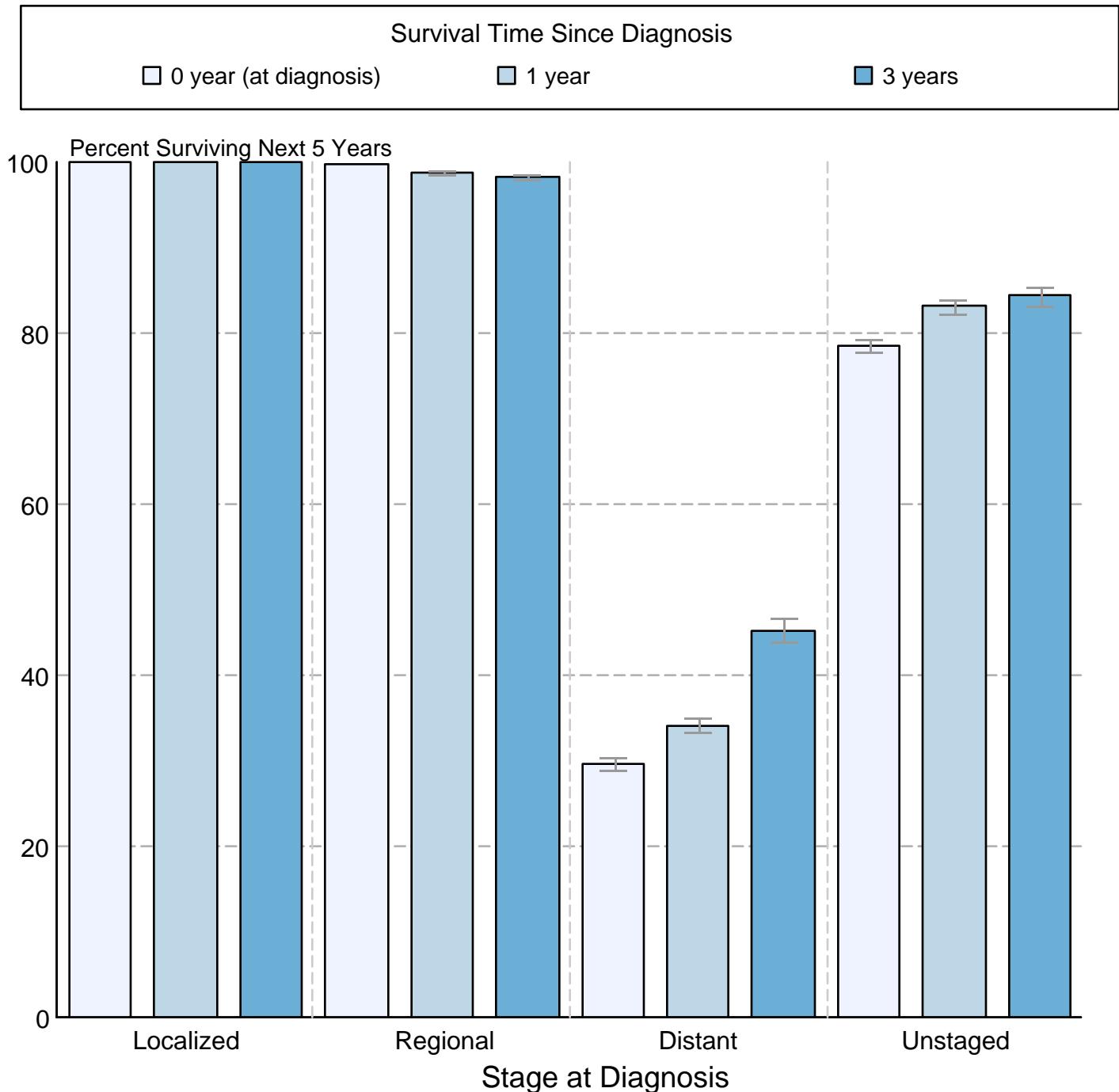
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

* The APC is significantly different from zero ($p < 0.05$).

Figure 23.7

Cancer of the Prostate
5-Year SEER Conditional Relative Survival and
95% Confidence Intervals
Probability of surviving the next 5 years given the cohort
has already survived 0, 1, or 3 years
1998-2013 by stage at diagnosis



Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG). California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG contribute cases for diagnosis years 2000 and later. The remaining 13 SEER Areas contribute cases for the entire time period.

Percent surviving is not shown if based on less than 25 cases.

Confidence intervals are not shown if length of the confidence interval is greater than 5 times the standard error.